

Datasheet for #sbcw19640 DN

Recommendations:

Please read the User Manual and have a look at the FAQ at <http://www.alpeslasers.ch/?a=142>

WARNING: Operating the laser with higher current or voltage than specified in this document may cause damage and will result in loss of warranty, unless Alpes Lasers has permitted to do so!

WARNING: Beware of the polarity of the laser. This laser has to be powered with negative current on the laser contact (= bonding pad, corresponding to the label "laser" on the LLH) and the positive current on the base contact (= submount, corresponding to the label "base" on the LLH). To be used with a high compliance CW laser driver capable of reaching the operating current and voltage indicated in this datasheet, or up to 2.5A/20V.



Figure 1: Mechanical and electrical interface for #sbcw19640 DN

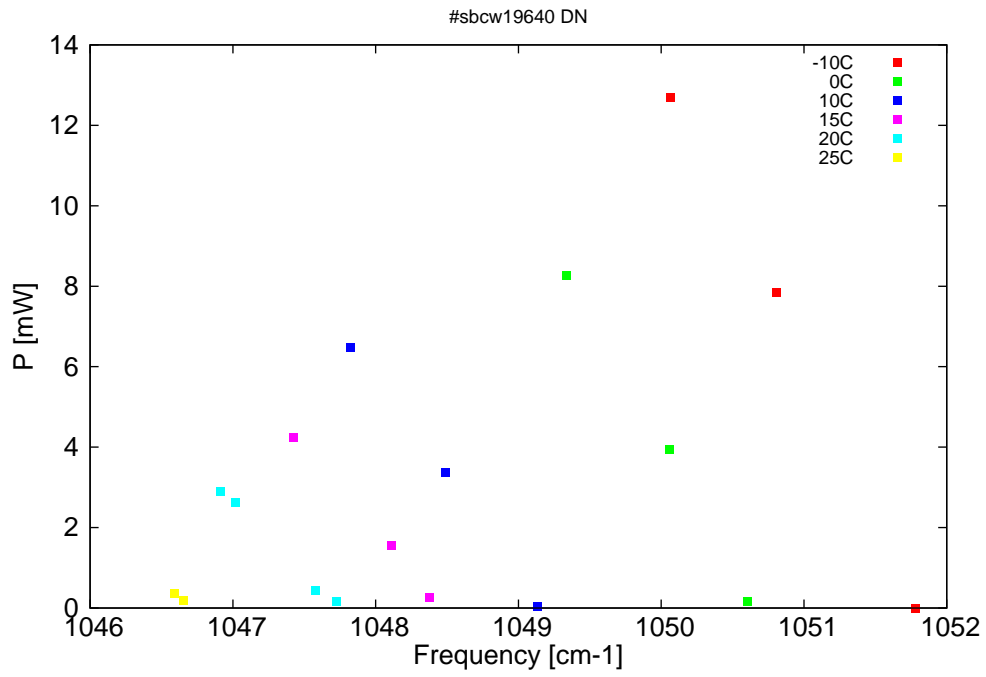


Figure 2: Output power as a function of the singlemode emission frequencies and temperatures

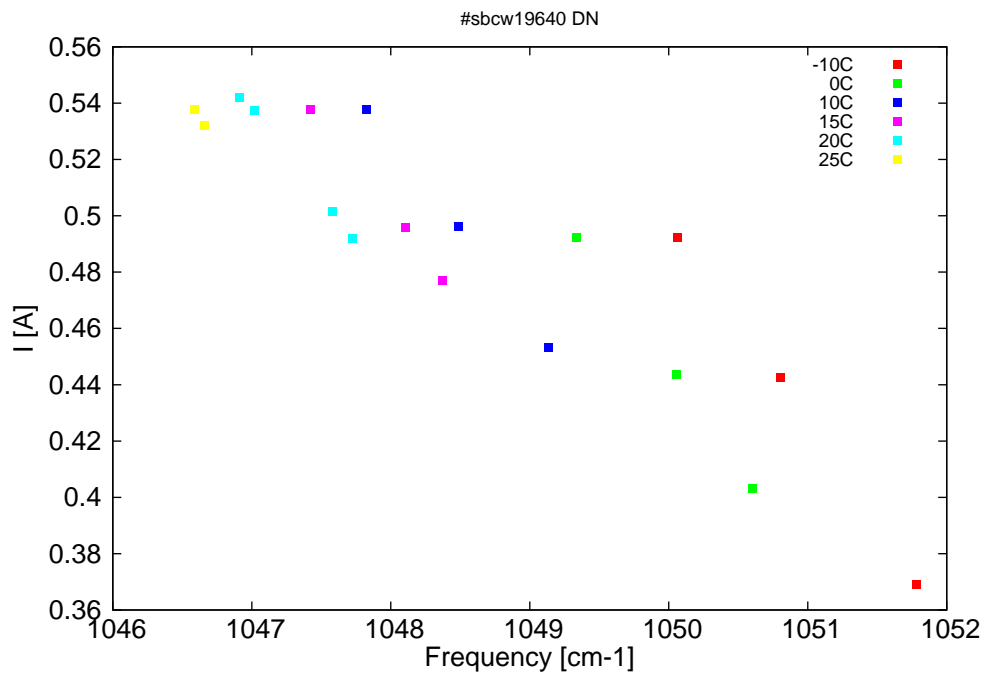


Figure 3: Applied DC current as a function of singlemode emission frequencies and temperatures

λ [nm]	ν [cm ⁻¹]	P[mW]	Temp[°C]	U_{LASER} [V]	I[A]
9507.7	1051.8	0	-10	9.09	0.369
9516.5	1050.8	7.8	-10	9.57	0.443
9523.2	1050.1	12.7	-10	9.88	0.492
9518.3	1050.6	0.2	0	9.23	0.403
9523.3	1050.1	3.9	0	9.5	0.444
9529.8	1049.3	8.3	0	9.81	0.492
9531.7	1049.1	0	10	9.52	0.453
9537.5	1048.5	3.4	10	9.8	0.496
9543.6	1047.8	6.5	10	10.09	0.538
9538.6	1048.4	0.3	15	9.64	0.477
9541	1048.1	1.6	15	9.77	0.496
9547.2	1047.4	4.2	15	10.06	0.538
9544.5	1047.7	0.2	20	9.69	0.492
9545.8	1047.6	0.4	20	9.78	0.502
9550.9	1047	2.6	20	10.03	0.537
9551.9	1046.9	2.9	20	10.04	0.542
9554.2	1046.7	0.2	25	9.97	0.532
9554.8	1046.6	0.4	25	10.01	0.538

Table 1: Singlemode optical output power as function of operating parameters.

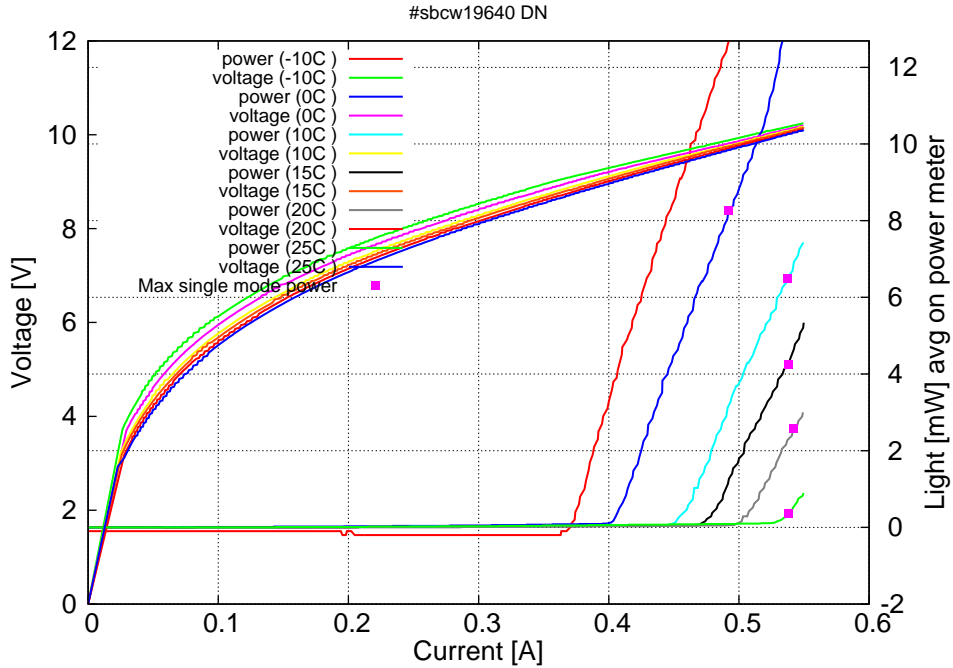


Figure 4: voltage and avg power vs current in continuous-wave operation (the solid squares indicate the maximum singlemode emitted power)

Note: at -10C: $I_{th}=0.36A$ / $V_{th}=9.0V$ (2-wires measurements). Maximum operation current: 0.49A between -10C and 0C, 0.54A between 10C and 25C.

Figure 3: spectra at different temperatures for various DC currents

